

Project material and workshop tips for the home shop owner

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VOLUME 25 • ISSUE 3

Deltaq'ram®

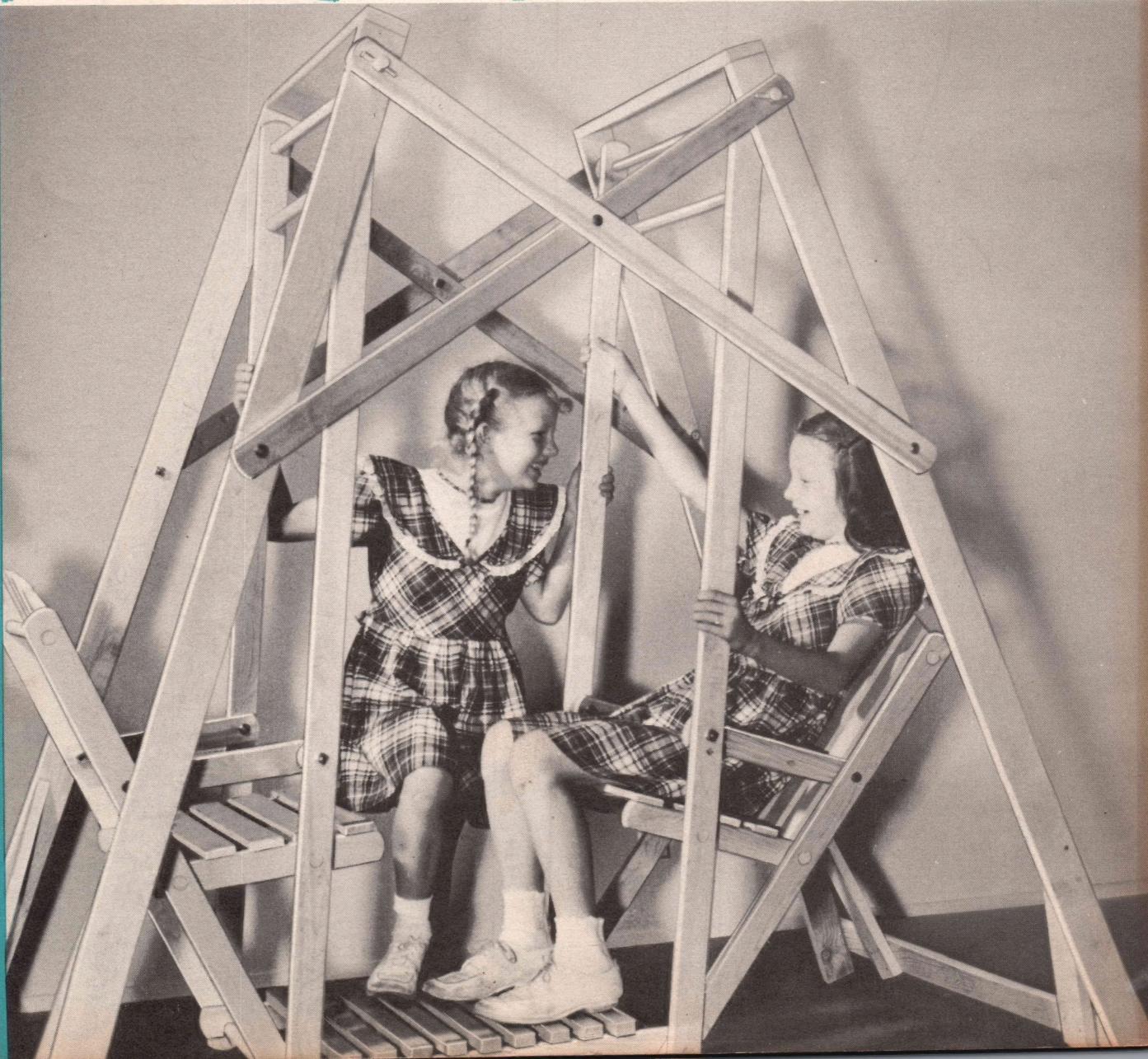
A DELTACRAFT PUBLICATION

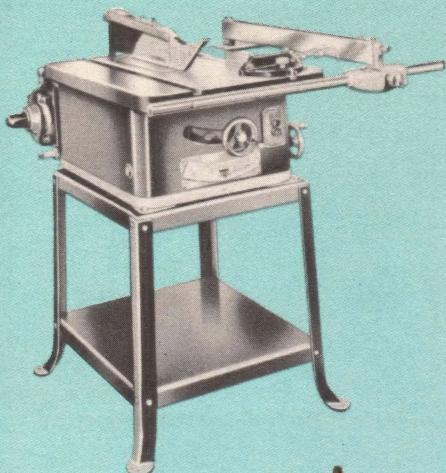
in this issue:

TOY WHEELBARROW, CHAISE LOUNGE, SAND BOX, OLD FASHIONED LAWN SWING, GARDEN CUT-OUTS, TRELLIS DESIGNS, WOODEN BEACH CLOGS, DOG FEEDING STAND, ROBIN SHELTER, MAIL BOX, PICNIC TABLE AND CLAMP RACK.

may
june
1956

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\$1.00 a year





Chuck's Workshop

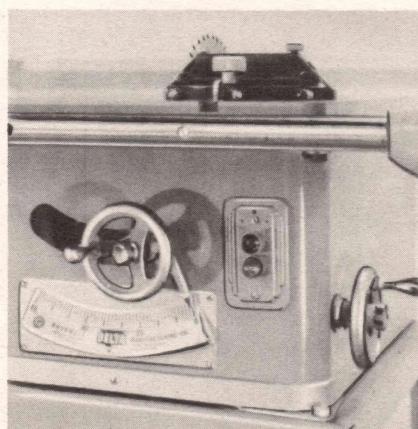
The New Delta 10" Tilting Arbor Bench Model Circular Saw

New products are coming so thick and fast at Delta that I haven't yet had a chance to talk to you about one that really has a lot of appeal for hobbyists, and that's the New 10" Tilting Arbor Bench Saw. So let's back-track a little and cover a few of the fine points of the new saw and what it has to offer you.

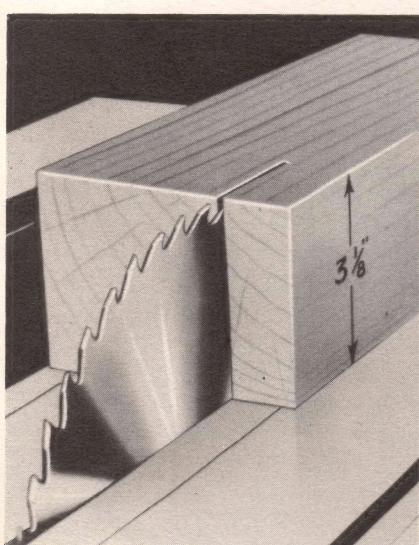
First off, some of you may be wondering why Delta introduced another 10" saw, since they already have a good unit in the 10" UNISAW. Well . . . schools and industry needed a husky, big capacity saw—that, like the Unisaw, had all the "beef" necessary to give continued trouble-free performance, day in and day out—at a new low price.

What does this mean to you, the home shop owner? Now *you* can get a big capacity unit—a saw that can rip to the center of a 48" panel, cut stock $3\frac{1}{8}$ " thick ($2\frac{1}{8}$ " at full blade tilt of 45°) with $13\frac{1}{4}$ " of table in front of the blade for cross-cutting wide material—all the capacity you'll ever need at small saw price.

And that's not all, since the new Delta 10" Saw was primarily designed for industrial and school shop use, where safety is of prime importance, you know you'll be getting the safest saw for the home workshop. For example, the new Delta 10" Saw has centrally located blade elevating and



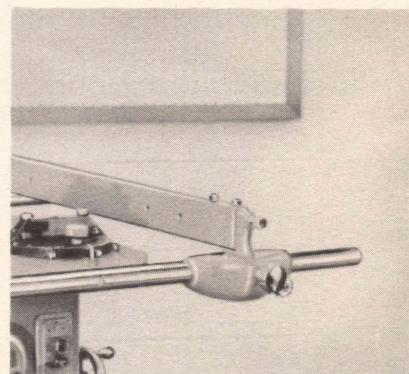
(Photo No. 3)
Note how all controls are within easy reach.



(Photo No. 2)
Compare this big depth of cut.

tilting controls with lock knobs for maintaining desired settings . . . a rip fence with up-front controls . . . easy-to-read scales, plus the optional push-button switch that has a protruding stop and shrouded start button to prevent accidental starts and provide safe control for quick emergency stops.

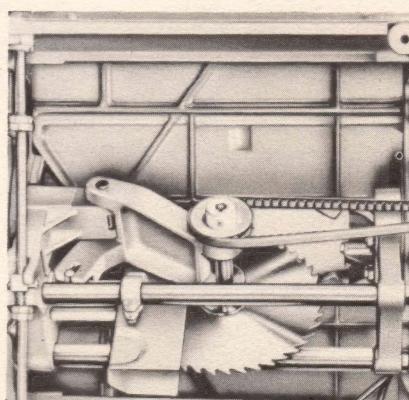
In the Delta 10" Tilting Arbor Bench Saw you also get the best in design and construction — precision ground bearing seats . . . pre-loaded sealed-for-life ball bearings . . . big scientifically ribbed table to prevent distortion . . . microset rip fence for accurate rip settings . . . etc., and most important of all, the new Delta Saw is of the preferred *tilting blade* design (and not a tilting table saw). This means you get greater flexibility of operation since the material feed is always level.



(Photo No. 4)
Even the rip fence controls are up front.

Another point which may interest you woodworkers, is the new "floating" pulley drive of the saw. The motor always remains in a fixed lateral position. The motor pulley "floats" in proper position when tilting the blade for angle cutting. This unique drive enables you to add the famous Delta 6" Jointer, at any time, to form an ideal saw-jointer combination.

All in all, the new Delta Saw is the best circular saw you can buy for the home shop. It's on display now at your Delta Dealer's store. Stop in and put it through its paces.



(Photo No. 5)
Look at this sturdy, undatable construction.

DeltaGram

A. M. Warkaske—Editor

Vol. 25 Issue No. 3 May-June, 1956

Rates: 20c Per Copy

1 year (6 issues) \$1.00

3 years (18 issues) \$2.75

5 years (30 issues) \$4.50

Foreign countries add 25c per year extra for postage and handling.

This is a Deltacraft publication written and edited for the home shop owner by the Delta Power Tool Division of the Rockwell Manufacturing Company.

Every attempt is made to satisfy the needs of the home shop owner for a well rounded selection of project material and crafting tips. The DeltaGram is published six times a year. Subscriptions may be purchased from your authorized Delta dealer or direct from the Advertising Department of the Delta Power Tool Division of Rockwell Manufacturing Company, 300 North Lexington Avenue, Pittsburgh 8, Pennsylvania.

NOTE: Be sure to mention the expiration date marked on the back cover of the magazine when inquiring about your subscription.

All correspondence regarding projects and editorial material should be addressed to the editor of the DeltaGram, A. M. Warkaske, Delta Power Tool Division, Rockwell Mfg. Co., 300 N. Lexington Ave., Pittsburgh 8, Pennsylvania.

TABLE OF CONTENTS

	Page
Delta Craftsheets (Assembling Compound Miters)	43
Toy Wheelbarrow	44
Chaise Lounge	46
Sand Box	48
Old Fashioned Lawn Swing	50
Garden Cut-outs	52
Trellis Designs	53
Wooden Beach Clogs	54
Dog Feeding Stand	54
Robin Shelter	55
Mail Box (With Squirrel Design)	55
Picnic Table and Benches	56
Clamp Rack	58

Attention readers of the DeltaGram: — Do you have any pieces of furniture in your home you yourself designed? If you have why don't you submit them as possible DeltaGram projects. We are still offering gift certificates for material accepted which can be applied to Delta Tools or Accessories. All you need to send is a good photo of the finished project, descriptive copy and a rough sketch.

Cover Shot



The young ladies in the cover shot of this issue are enjoying the lawn swing made by their father. Complete plans for this project appear on Page 51.

shop hints

Zig-Zag sawing on the band saw is sometimes due to two things. First the wheel tires may have worn spots, causing a jumping action. Check your wheels to make sure they run true. Second fault may be improper setting of guides. Set both the upper and lower guides out as far as possible in relation to the gullet of the blade teeth and adjust the side guide blocks just loose enough so the blade rides freely.

Edge Banding of plywood tops. Often times the edge strip comes loose after the glue has dried. To get good glue joints scratch the surface edge on both the plywood and strip with coarse garnet paper so that the glue can adhere to both surfaces firmly.



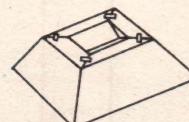
"Oh! for Heaven's sake . . . I only sawed a few of these little curtain rods in two."

Delta CRAFTSHEET

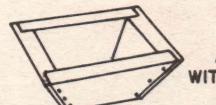
ASSEMBLING COMPOUND MITERS

Here are two simple ways of assembling compound miters. The splined miter joints are made with the aid of a jig or guide blocks (Fig 1 and 2). Guide bevel pieces are cut at the same angle as used for the work and held together with blocks screw fastened to the ends. The jig is held in place over the saw with C-Clamps.

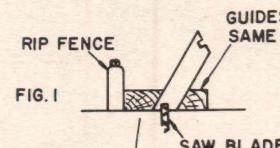
Another simpler method is to rabbet the two ends and assemble the pieces with nails and glue. The rabbets are made in two passes over the saw blade. The first pass is shown in position in Fig. 3. A spring-board (cut at about 45°) with a series of saw slots made in a 2 x 4 is used to hold the pieces firmly against the fence while making the upright cuts, (Fig. 4). The second cut is made with the pieces laying flat on the saw table. For complete data on setting the miter gage and blade on your saw, refer to the "Table of Compound Angles," page 114 of the Deltacrat book, "Getting the Most Out of Your Circular Saw and Jointer."



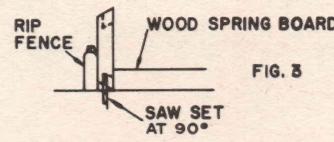
PLAIN MITER WITH SPLINES



ASSEMBLED WITH NAILS & GLUE



RIP FENCE
FIG. 1
SAW BLADE
C-CLAMP
GUIDES BEVEL RIPPED SAME AS WORK



RIP FENCE
FIG. 3
WOOD SPRING BOARD
SAW SET AT 90°

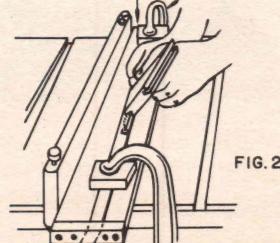


FIG. 2

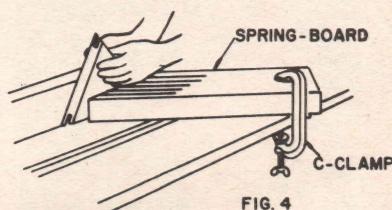


FIG. 4



From the Editor's Desk

A few more weeks and Summer will officially be with us — according to the calendar, that is. Most of us will again get at those outdoor projects we were thinking about during the Winter months. In looking through this issue of the Delta-gram you'll notice we have tried to select projects appropriate for this time of the year. We hope you like them.

REPRINT

Due to the numerous requests we have been getting for the Delta-gram issue in which the conventional style lawn swing appeared, we thought it would be a good idea to repeat this project for our new readers as well as our older friends. For those of you who prefer to work from plan sheets, we have a limited amount of these on this lawn swing. This is our plan No. 4657 and sells for \$50.

PROJECTS FOR OUTDOOR LIVING

For the older folks, the chaise lounge featured on Page 46 should be very appealing. You can read your favorite book or newspaper in complete comfort in the great outdoors. Your small fry will enjoy the sand box on Page 48, the frisky type will get a lot of fun pushing the monkey wheelbarrow (Page 44). When company comes, you can serve your meals outdoors on the sturdy picnic table (Page 56). The two matching benches to the picnic table will seat eight people very comfortably. Garden cut-outs and trellises are always in good taste. They not only beautify the yard but add to the value of the property (see Pages 52 and 53).

ONE EVENING PROJECTS

Even though most communities have mail delivery direct to the house, there are times when no one is at home. A novel mail box like the one on Page 55 keeps the letters out of the weather. It's also very handy for your daily newspaper.

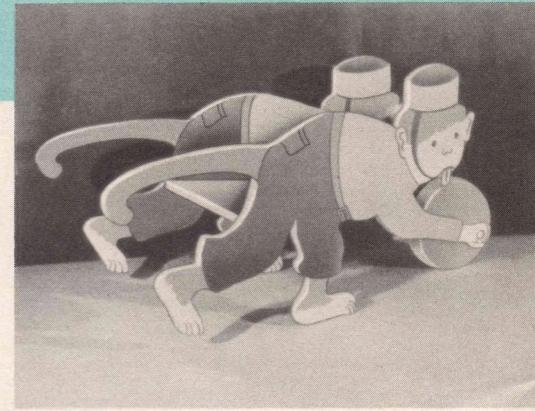
No home is complete without at least one robin nearby. You can entice a family of robins to share one of your trees by building the robin shelter on Page 55. You can also attract them by mounting the shelter on your porch or under the house eaves.

If you are fortunate in having a swimming pool in your back yard or like to visit the beaches, you will make good use of the wooden clogs, Page 54. Last but not least we also have something for your pet dog. The feeding stand houses two plastic bowls, one for water and the other for food.

Don't forget your own workshop—build the simple clamp rack on Page 58 and keep your clamps within easy reach when gluing and assembling projects.

The Editor

TOY WHEELBARROW.



(Photo No. 1)

The youngster in your family will get loads of fun wheeling his toys around the garden in this "monkey" wheelbarrow. If you can give him some sand, he'll be busy for hours at a time wheeling it from one place to another in the play yard.

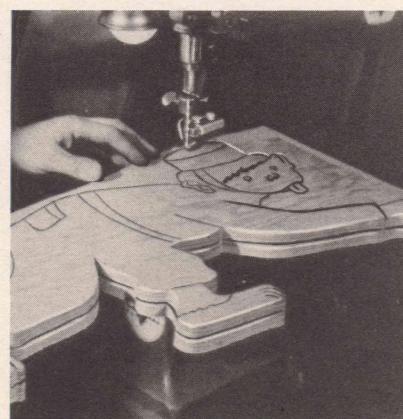
Layout the monkey pattern (using the squares method) directly on your $\frac{3}{8}$ inch waterproof plywood stock or a piece of cardboard and scroll or bandsaw to shape. Tack both sides together and saw them out at one time. Sand the edges well and break all sharp corners. The sanding attachment on the scroll saw Cat. No. 711 or the belt sanding attachment on the bandsaw Cat. No. 28-810 is ideal for this purpose.

Bore the axle hole in the sides on the drill press using a $\frac{1}{2}$ inch machine spur bit Cat. No. 808 with the table tilted at 8° . The side edges of the bottom and back of the bed of the wheelbarrow are cut on the circular saw with the table or saw arbor tilted 8° (see drawing). These pieces are then assembled to the sides with waterproof glue and No. 8 flat head wood screws.

The wheel is made of two pieces of $\frac{3}{4}$ inch waterproof plywood glued together. The hole in the wheel for the axle should be $9/16$ inches so it will ride

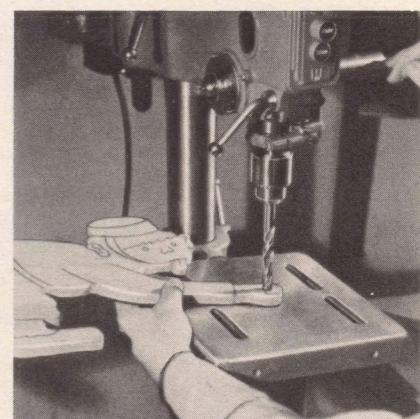
Bill of Materials

No. of Pieces	Name	Size
2	Sides (Waterproof Plywood)	$\frac{3}{8} \times 11\frac{1}{4} \times 23$
1	Bottom (Waterproof Plywood)	$\frac{3}{8} \times 7\frac{3}{4} \times 10$
1	Back (Waterproof Plywood)	$\frac{3}{8} \times 5 \times 7\frac{3}{4}$
1	Wheel	$1\frac{1}{2} \times 5\frac{1}{2} \times 5\frac{1}{2}$
1	Wheel Axle Dowel	$\frac{1}{2}''$ Dia. x 7
2	Wheel Axle Dowel Pins	$\frac{1}{4}''$ Dia. x 1 $\frac{1}{2}$
2	Flat Head Wood Screws	No. 6 x 1 $\frac{1}{2}$
12	Flat Head Wood Screws	No. 8 x 1 $\frac{1}{2}$



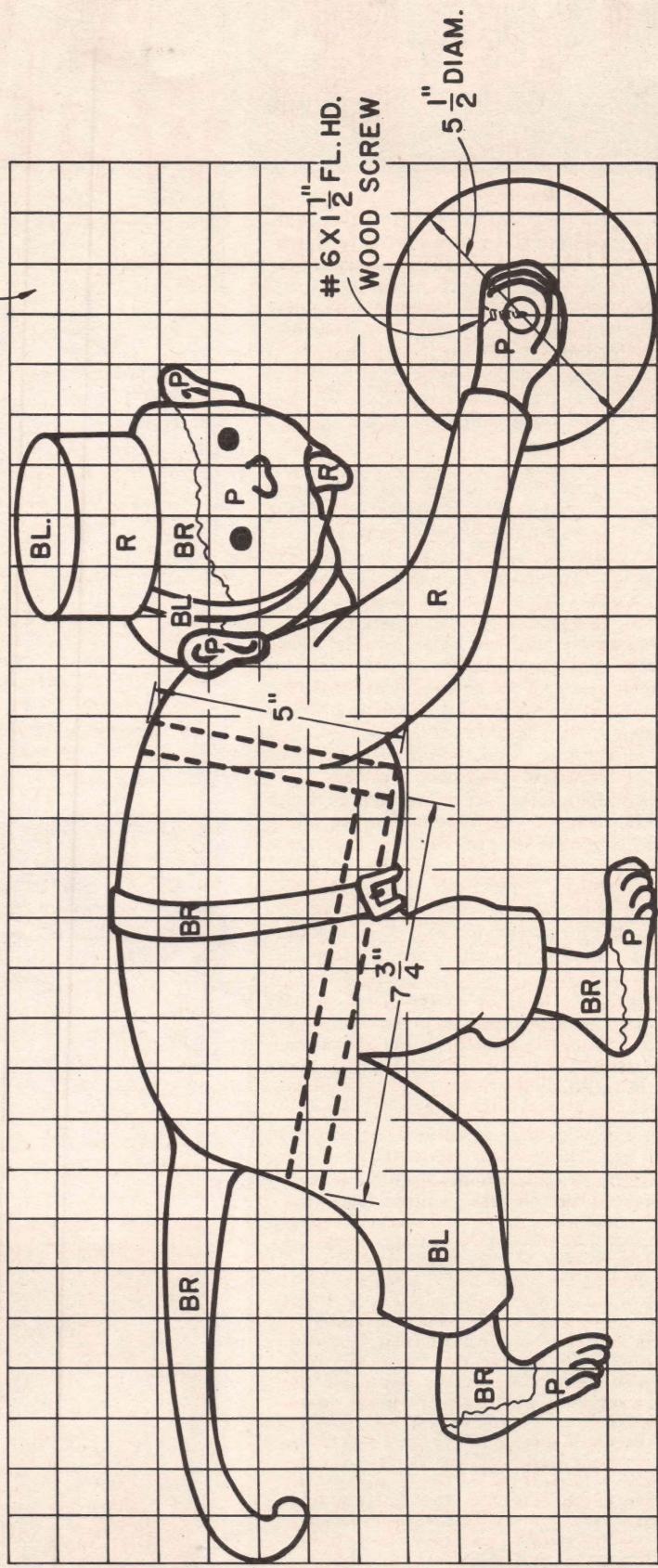
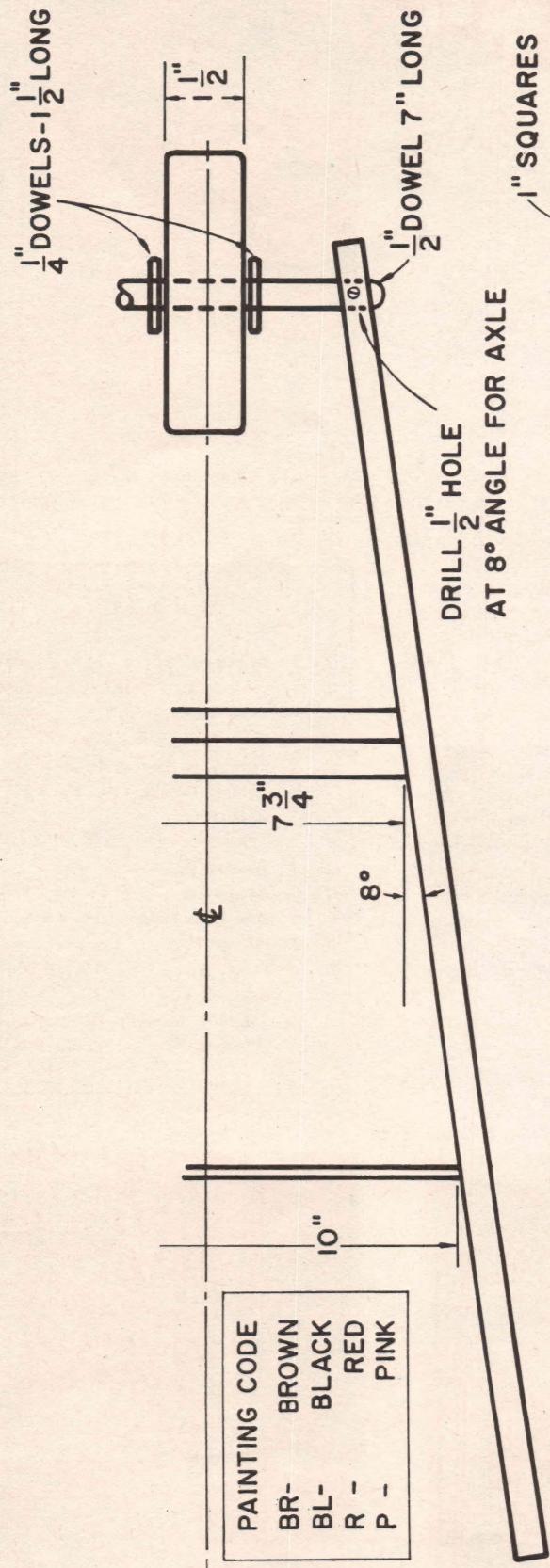
(Photo No. 2)

By tacking the pieces together, both sides can be cut on the scroll saw at one time.



(Photo No. 3)

With a Cat. No. 808 $\frac{1}{2}$ inch machine spur bit and the table of the drill press tilted at 8° the axle holes are bored in the sides.



Chaise Lounge

Your entire family will welcome this comfortable lounge and the opportunity it provides to spend quiet relaxing periods during the coming warm months. A two-inch foam rubber cushion covered with gay colored plastic will make this lounge a very attractive addition to your garden furniture.

The entire main frame was made of 1 1/8 in. clear pine. If cypress or redwood is available it will stand the weather much better than pine.

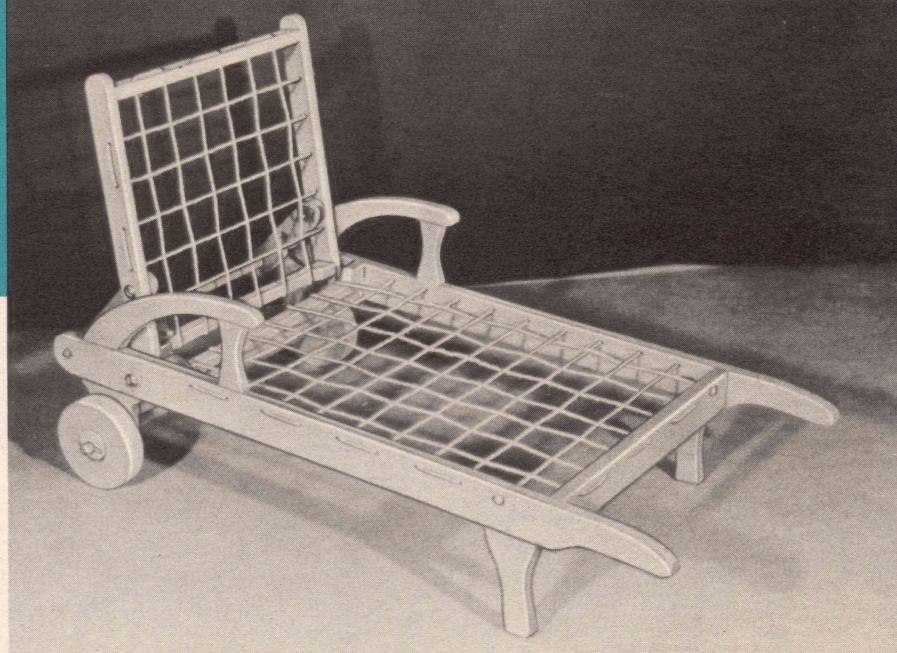
The crosspieces (C) and (B) are set into 1/4 inch grooves in the side (A), and screw fastened together (Photo No. 4). Front legs (L) are doweled and glued with waterproof glue to the sides. Wheel axle supports (G) are screw fastened to the sides with No. 10 by 1 1/4 brass flat head wood screws.

Back rest section pivots on two 5/16 inch carriage bolts and can be adjusted to three positions of the notched supports which in turn are fastened to the back rest frame (see drawing and photos 1 and 2). The notches in the supports are first drilled with 3/4 inch machine spur bit and then the slots are cut on the band saw (see Photo No. 5).

By tacking two pieces of stock together for the arm rests (H) they can be cut at the same time (see Photo No. 3). This same process can be used on the arm rest supports (J), front legs (L) and wheel supports (G).

The wheels can be made of solid 1 1/8 stock or built up of two pieces of 3/4 inch waterproof plywood. These are mounted on a 3/4 hardwood dowel—if a 1 inch dowel is available it would be better. Two washers made of 1/4 inch tempered pressed wood are used for each wheel—1/4 inch dowels on axle ends hold the wheels in place (see Fig. 6 in drawing).

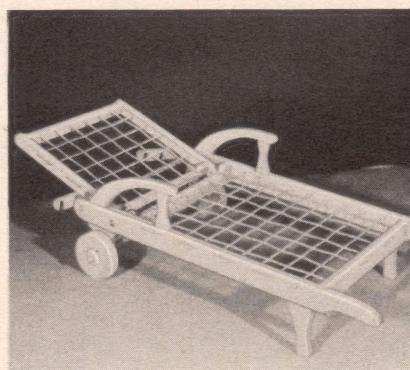
The overall width and length dimensions in the drawing will accommodate a 26 x 68 inch pad. This pad is supported by a netting of 5/16 or 3/8 inch sash cord which is threaded through 3/8 holes bored in the main



(Photo No. 1)

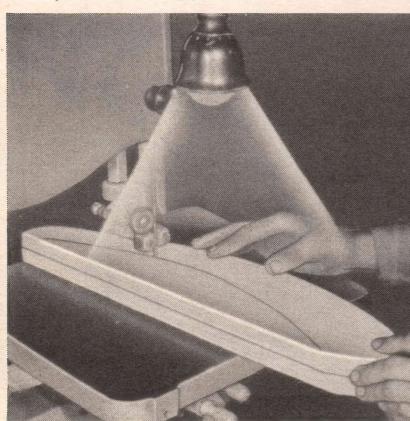
frame and pivoted back rest. Space the holes about 4 inches apart. Note—do not thread the rope until the project has been painted.

Break all sharp corners with a medium and fine garnet paper. Apply a coat of wood preservative and let dry for at least 48 hours before applying a white undercoat. Finish with a white outside paint and trim the front legs and wheels with green.



(Photo No. 2)

The back rest is now in a reclining position.



(Photo No. 3)
Tack stock for arms together and cut these out at the same time on the band or scroll saw.

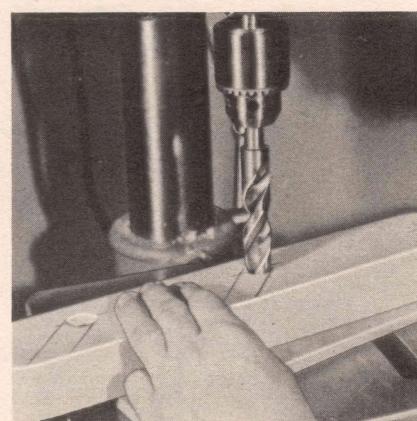


(Photo No. 4)
Grooves for the end stretchers are made on the saw in two passes over the Cat. No. 34-333 dado head.

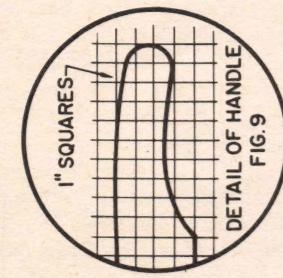
The above photo shows the lounge without the padding and the back rest in uppermost position.

Bill of Materials

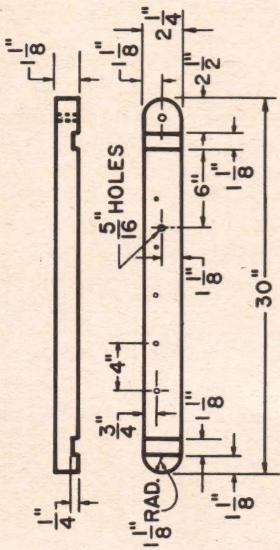
(A)	2	Stretcher	.....	1 1/8 x 4 x 64
(B)	1	Cross Rails (Front)	1 1/8 x 4 x 26 1/2	
(C)	1	Cross Rails (Rear)	1 1/8 x 4 x 26 1/2	
(D)	2	Back Rest (Sides)	1 1/8 x 2 1/4 x 30	
(E)	2	Back Rest (Top and bottom)	.....	1 1/8 x 2 1/4 x 26 1/2
(F)	2	Back Rest (Supports)	.....	1 1/8 x 2 1/4 x 11
(G)	2	Wheel Axle Supports	1 1/8 x 7 x 11	
(H)	2	Arm Rests	.....	1 1/8 x 4 5/8 x 21 1/2
(J)	2	Arm Rests Supports	1 1/8 x 2 1/2 x 7	
(K)	2	Wheels	.....	1 1/8 x 8 3/4 x 8 3/4
(L)	2	Front Legs	.....	1 1/8 x 4 1/2 x 9
(M)	1	Back Rest Support Dowel	.....	3/4 Dia. x 28 1/4
(N)	1	Wheel Axle	.....	3/4 Dia. x 34 1/4



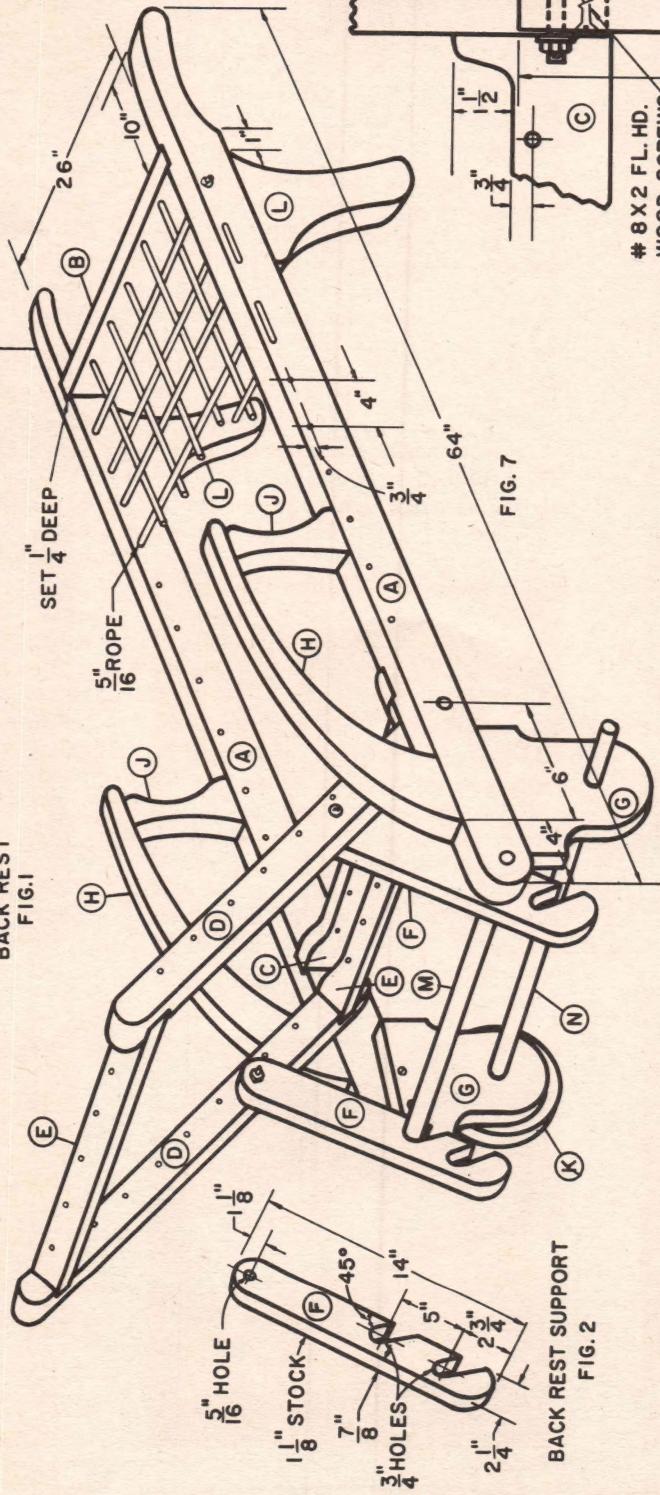
(Photo No. 5)
Holes for notches in back rest supports are bored on the drill press. Pieces are tacked together and bored at one time.



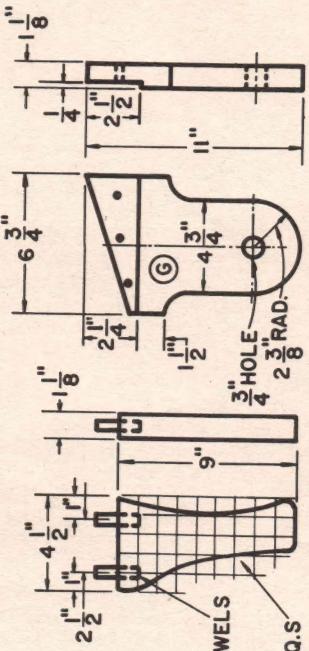
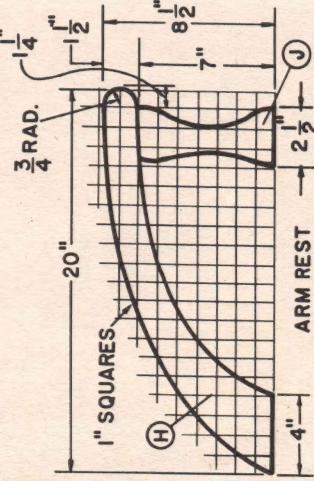
DETAIL OF HANDLE
FIG. 9



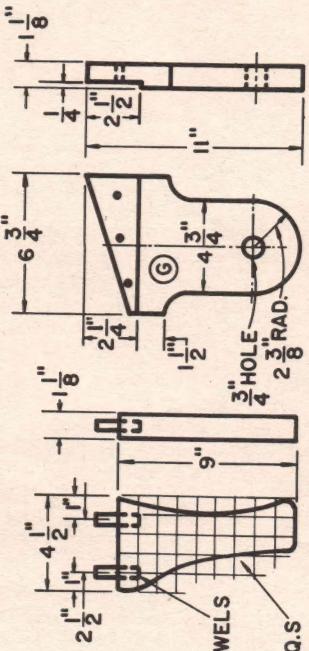
BACK REST FIG.



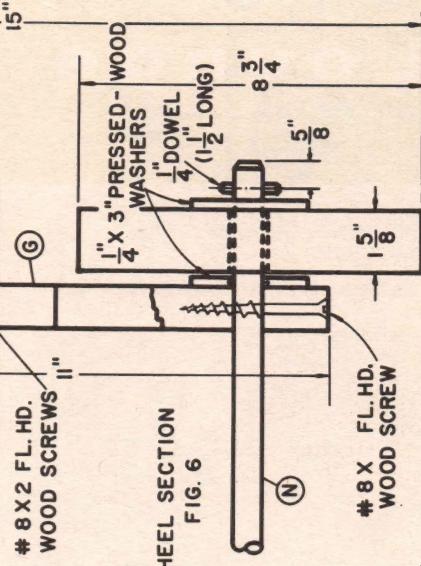
ACK REST SUPPORT
FIG. 2



WHEEL SUPPORT
FIG. 5



WHEEL SECTION
FIG. 6



8 X FL. HD.
WOOD SCREW

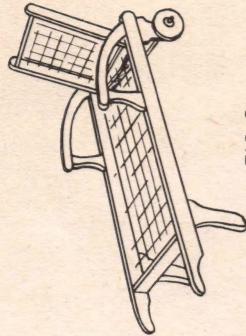
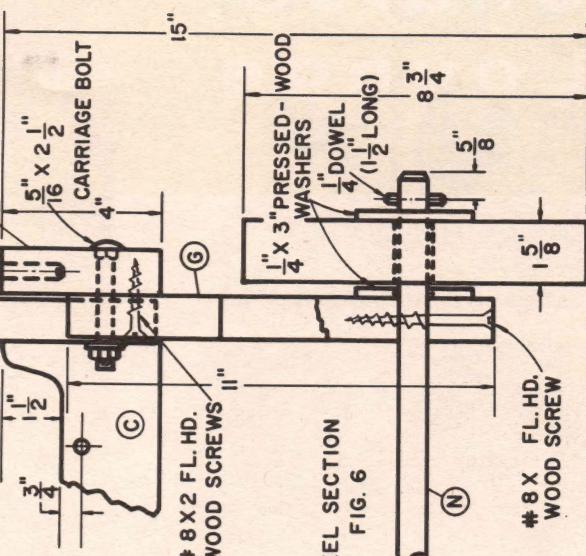
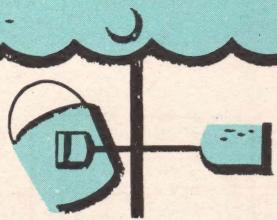


FIG. 8

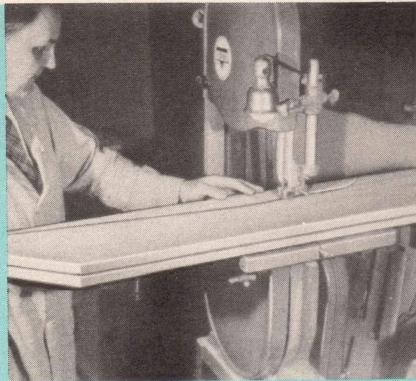


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SAND

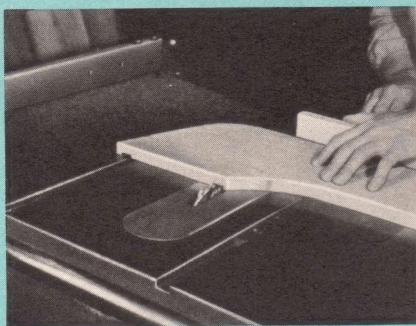


BOX



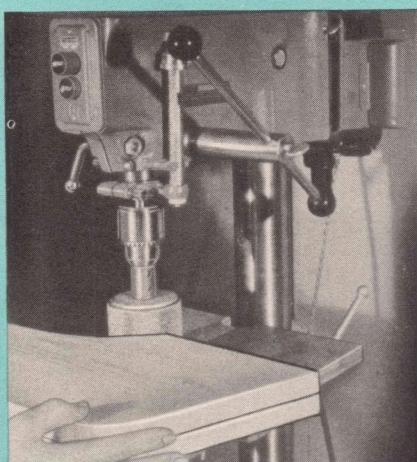
(Photo No. 2)

Tack both sides together and cut out at the same time on either the band or scroll saw.



(Photo No. 3)

Grooving the sides for the end pieces (optional) is done on the circular saw with the dado head Cat. No. 34-333 in two operations.



(Photo No. 4)

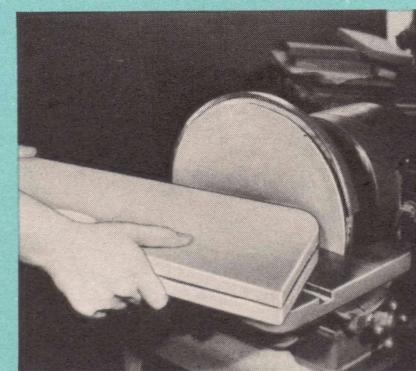
All curved edges are easily sanded on the drill press with the 3-inch drum sander Cat. No. 830 and auxiliary wood table.

(Photo No. 1)

If you want to keep your youngsters at home and happy during the Summer, build them this simple sand box. The one shown here simulates a boat. The canopy represents a sail. An added feature is the box compartment on one end for storing pails, shovels and whatever toys the child chooses to play with. This eliminates a lot of unnecessary tracking of sand into the house.

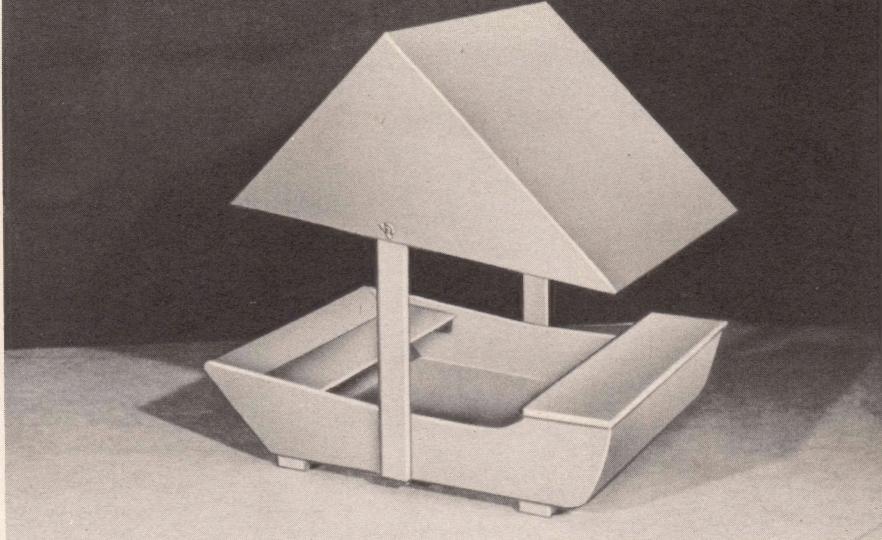
Begin by tacking two pieces of $\frac{3}{4}$ x $8\frac{3}{4}$ x 48 inch stock for the sides. Lay out the end taper and top edge cuts as indicated in the drawing. Saw the end taper cuts on the circular saw by setting the miter gage to 45° for one end cut and the other end at 15° . Then band saw the top edge on the band saw (see Photo No. 2). Sand all curved sections on the drill press using a 3-inch drum sander Cat. No. 830 (Photo No. 4).

Grooving the sides for the crosspieces, (which is optional, see Photo No. 3), will make a stronger box than merely having butt joints. In either case, screw fasten the sides to the crosspieces with at least four No. 10 x $1\frac{3}{4}$ brass flat head wood screws. The bottom can be made of $\frac{3}{4}$ inch solid stock or $\frac{3}{4}$ inch waterproof plywood fitted as indicated in the drawing.



(Photo No. 5)

End cuts are sanded smooth on the disk sander.



The seat cover piece (E) over the box compartment is hinged to the base with $1\frac{1}{2}$ x 3 brass tight pin butt hinges. The seat (D) on the opposite side is screw fastened to the cleats which are screw fastened to the sides of the box. Screw fasten the box to the 2 x 4 cleats from the inside of the box (see drawing).

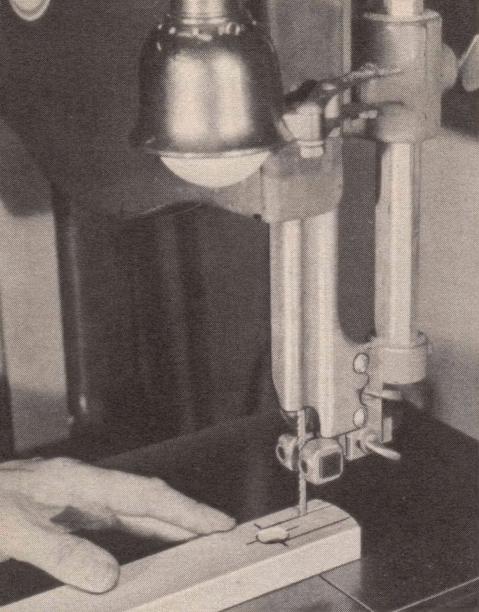
Canopy support pieces (F) are screw fastened to the sides with No. 10 x $1\frac{1}{2}$ inch flat head wood screws. Cross pieces (G) are held in position on support pieces (F) with $\frac{1}{4}$ x $1\frac{3}{4}$ carriage bolts and wing nuts. By adding a $\frac{1}{4}$ inch wide groove in the upper portion of the uprights (F), the canvas top can be made adjustable to provide maximum shade.

All exposed edges can be rounded off on the circular saw with the moulding cutter head and the Cat. No. 35-238 cutters, or they can be removed with a hand plane and sandpaper.

For a sealer use a wood preservative. Follow with an outside undercoat and a coat of outside enamel. Green with white trim makes a pleasing combination of colors.

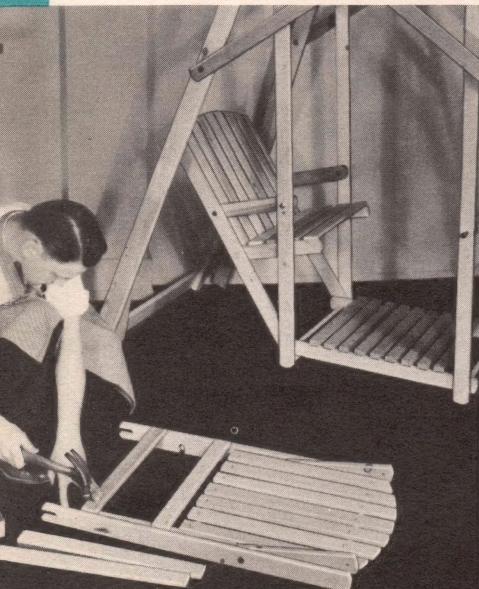
Bill of Materials

No. of Pcs.	Name	Size
2	Sides.....	$\frac{3}{4}$ x $8\frac{3}{4}$ x 48
1	End (A).....	$\frac{3}{4}$ x $8\frac{1}{2}$ x 33
1	End (B).....	$\frac{3}{4}$ x $13\frac{1}{4}$ x 33
2	Cross Piece (C) and Inside Seat (D).....	$\frac{3}{4}$ x 8 x 33
1	Seat (E)	$\frac{3}{4}$ x $9\frac{5}{8}$ x 36
2	Seat Cleats (For Seat (D)).....	$\frac{1}{4}$ x 2 x 27
2	Bottom Cleats (H).....	$1\frac{1}{8}$ x $3\frac{3}{8}$ x $34\frac{1}{2}$
2	Canopy Uprights (F).....	$\frac{3}{4}$ x 3 x 48
2	Side Pieces for Canopy (G).....	$\frac{3}{4}$ x $2\frac{1}{2}$ x 42
1	Top Support (J)....	$\frac{3}{4}$ x $2\frac{1}{2}$ x 36
26	Flat Head Brass Wood Screws.....	No. 10 x 2
2	Tight Pin Butt Hinges...	$1\frac{1}{2}$ x 3
2	Carriage Bolts (with wing nuts and Washers).....	$\frac{1}{4}$ x $1\frac{1}{4}$



(Photo No. 1)

The fork in the seat back uprights is made by first drilling a $\frac{3}{4}$ hole and then cutting out the slot on the band saw.



The above photo shows the seat being assembled with lath nails.



Photo above shows the spacer collars (N) used between the seat swivel uprights and the seat lock uprights.

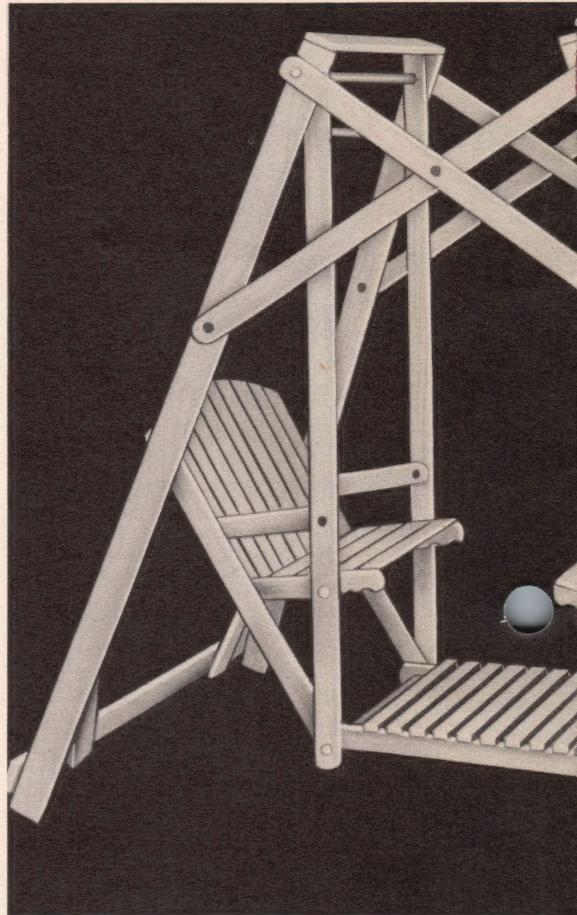
AN OLD FASHIONED LAWN SWING

Because of the many requests we have had from our readers for the Delta-gram (no longer available) in which this lawn swing project appeared, we are again repeating it for our new readers as well as our many old friends.

Here is a very practical lawn swing of the top suspension type which can be easily dismantled for Winter storage. No yard is complete without one especially if there are youngsters in the family.

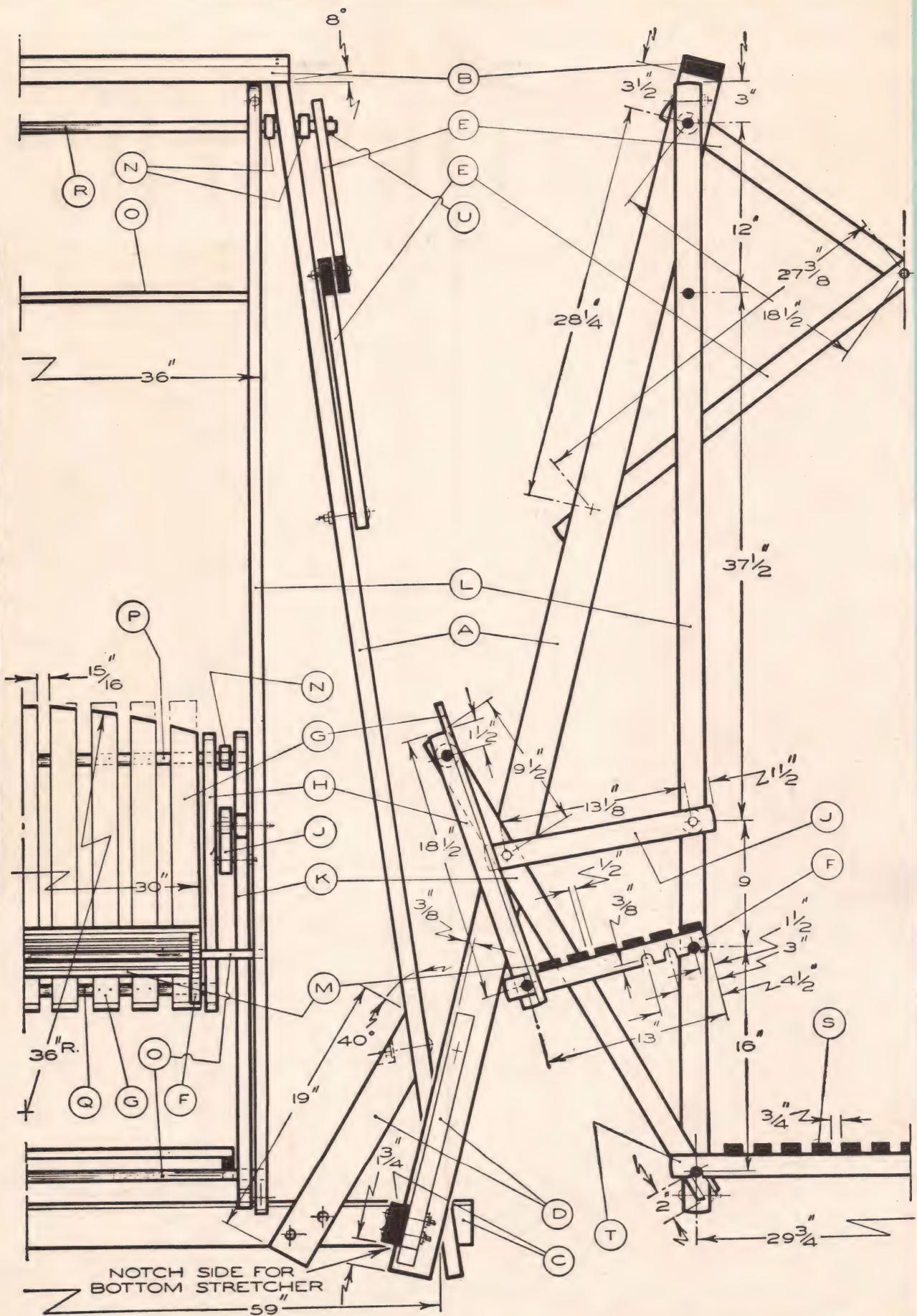
It is made entirely of hard wood such as maple, birch, oak or ash and should be thoroughly protected from weathering with several coats of boiled oil (mixed—half oil and half turpentine) with plenty of drying time between coats. One of the new wood preservatives can be substituted for the boiled oil. It may then be finished with spar varnish or painted with two coats of a good grade of outside paint.

You will notice that the drawing carries only instructional dimensions. All part sizes are given in the bill of materials. Naturally, all sharp corners where one would be likely to grasp the swing should be well rounded, either with garnet paper or on the circular saw using the moulding cutterhead Cat. No. 265 and the Cat. No. 35-238 cutters. This should be done not only for comfort but as a precaution against slivers.

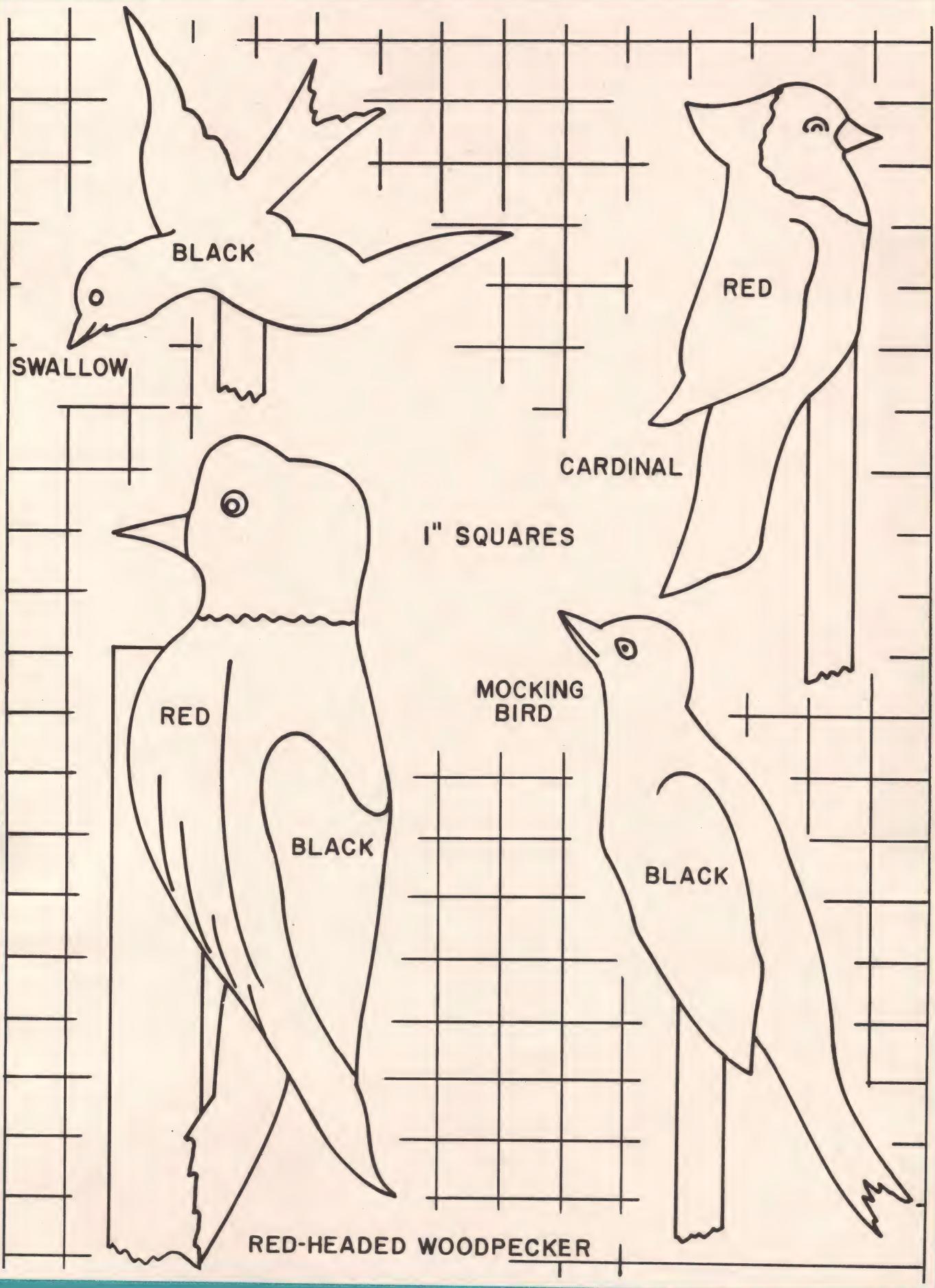


BILL OF MATERIAL

Item	Req.	Name	Size	Item	Req.	Name	Size
A	4	Main frame side	$1\frac{1}{8} \times 3 \times 89$	P	2	Dowel	$\frac{3}{4} \text{ dia.} \times 34\frac{1}{2}$
C	2	Main frame bottom stretcher	$1\frac{1}{8} \times 3 \times 63$	Q	2	Dowel	$\frac{3}{4} \text{ dia.} \times 31\frac{1}{2}$
B	2	Main frame top stretcher	$1\frac{1}{8} \times 3 \times 39\frac{1}{2}$	R	2	Seat hanger rod (C.R.S.)	$\frac{5}{16} \text{ dia.} \times 46$
D	4	Main frame support bracket	$1\frac{1}{8} \times 3 \times 19$	R	4	Cotter pin & $\frac{5}{8}$ washer	$\frac{1}{8} \times 1\frac{1}{4}$
E	4	Main frame cross arm	$\frac{3}{4} \times 13\frac{1}{4} \times 49\frac{1}{8}$	U	4	Carriage bolt	$5/16 \text{ dia.} \times 3\frac{1}{4}$
N	16	Spacer	$\frac{3}{4} \times 1\frac{1}{4} \times 1\frac{1}{4}$	8	Carriage bolt	$5/16 \text{ dia.} \times 2\frac{1}{2}$ (fastening D)	
L	4	Seat front upright	$\frac{3}{4} \times 1\frac{1}{4} \times 80\frac{1}{2}$	2	Carriage bolt	$5/16 \text{ dia.} \times 2\frac{1}{2}$	
K	4	Seat back upright	$\frac{3}{4} \times 1\frac{1}{4} \times 37\frac{1}{2}$	4	Carriage bolt	$5/16 \text{ dia.} \times 2\frac{1}{2}$ (fastening E)	
J	4	Seat arm rest	$\frac{3}{4} \times 1\frac{1}{4} \times 16\frac{1}{8}$	4	Carriage bolt	$5/16 \text{ dia.} \times 2$	
H	4	Seat swivel upright	$\frac{3}{4} \times 1\frac{1}{4} \times 20$	4	Carriage bolt	$5/16 \text{ dia.} \times 2\frac{3}{4}$ (fastening J)	
F	4	Seat swivel cleat	$\frac{3}{4} \times 1\frac{1}{4} \times 14\frac{1}{2}$	8	Carriage bolt	$\frac{1}{4} \text{ dia.} \times 2\frac{1}{4}$ (anti-splitting of seat front upright)	
G	18	Seat back slat	$\frac{1}{2} \times 2\frac{1}{2} \times 23\frac{1}{4}$	16	Flat hd. wd. Screw	$\text{No. } 10 \times 2\frac{1}{2}$ (fastening B, C)	
M	12	Seat slat	$\frac{1}{2} \times 1\frac{1}{2} \times 30$	100	Lath nail	..... (fastening G, M)
T	2	Floor slat support	$\frac{3}{4} \times 1\frac{1}{4} \times 33\frac{1}{4}$	52	Flat hd. wd. screw	$\text{No. } 8 \times 2\frac{1}{4}$ (fastening S)	
S	13	Floor slat	$1\frac{1}{8} \times 1\frac{1}{4} \times 33$				
O	6	Dowel	$\frac{3}{4} \text{ dia.} \times 36$				

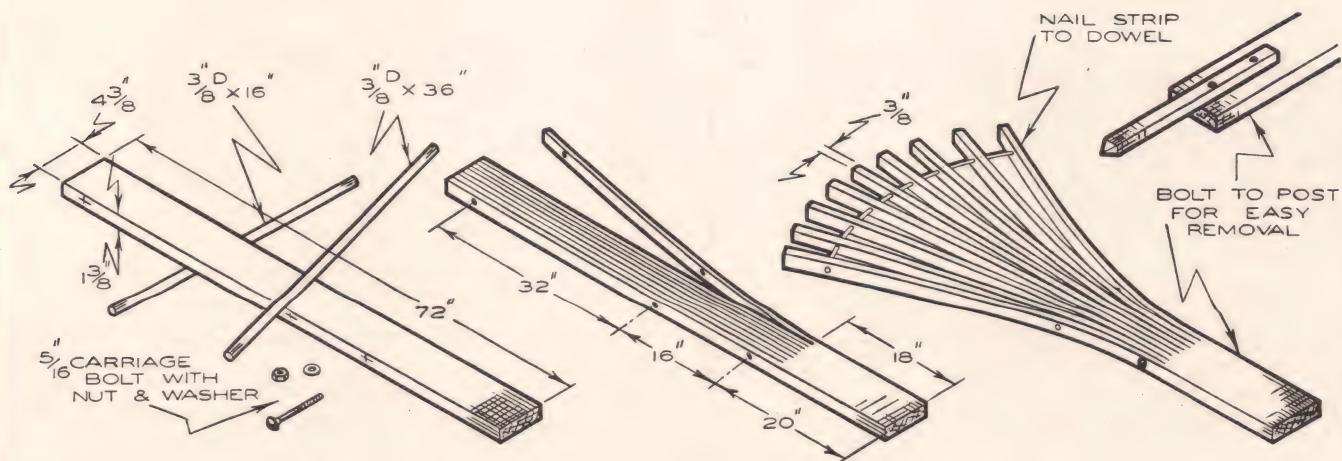
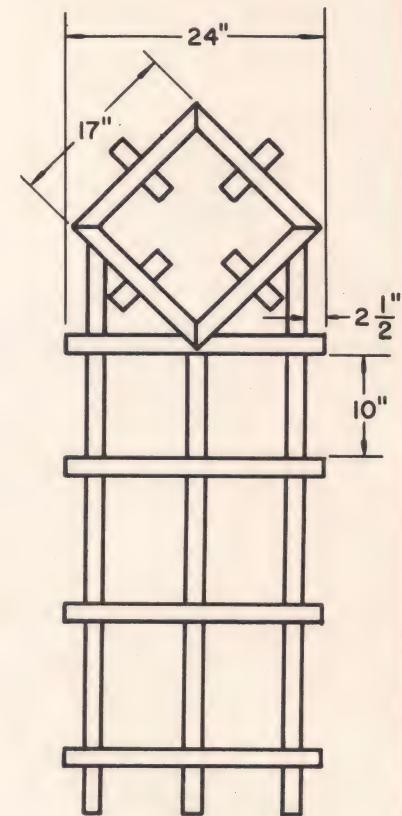
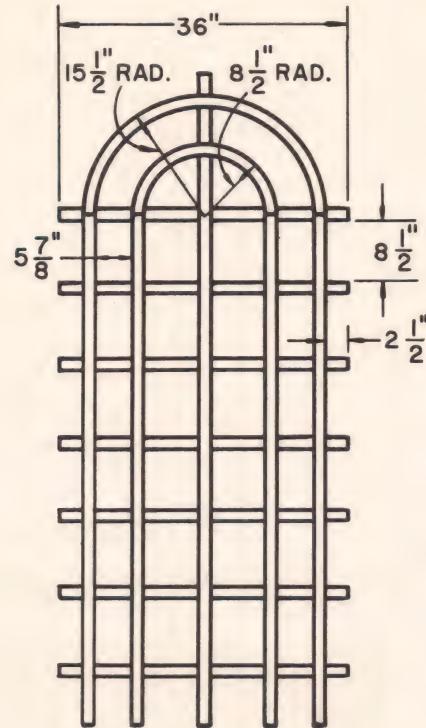
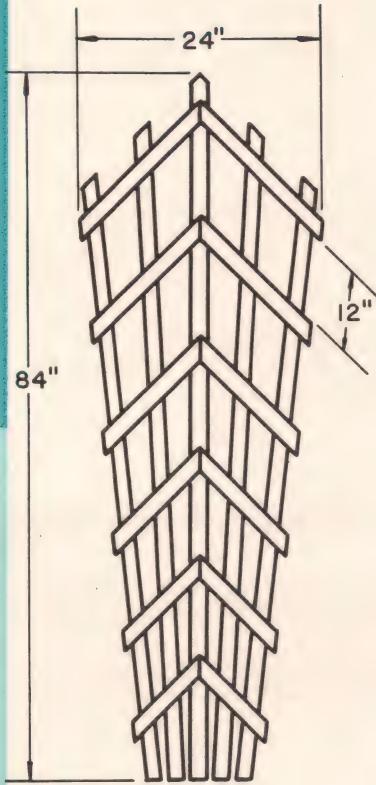


GARDEN CUT-OUTS



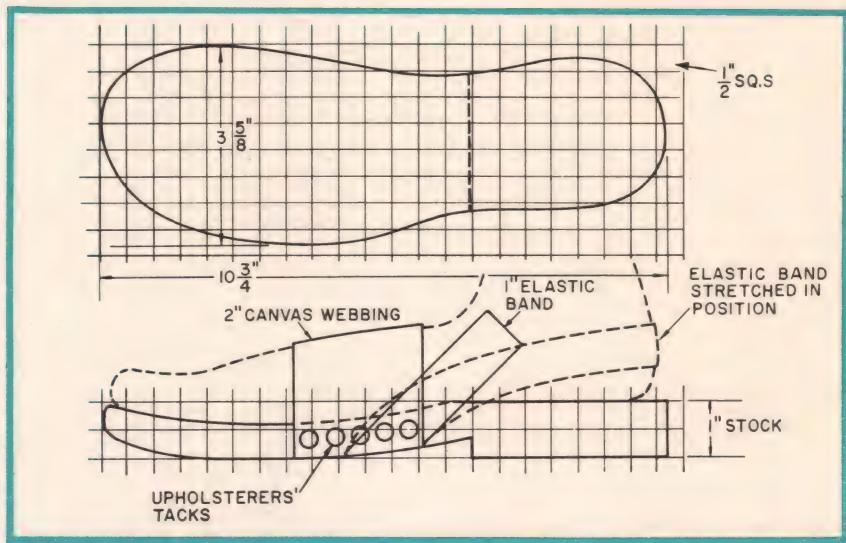
TRELLIS DESIGNS

General overall dimensions are given. Use $\frac{3}{8} \times 1\frac{1}{2}$ cypress or pine stock for the lattice strips. Treat the entire trellis with a wood preservative and one or two coats of outside white paint. For easy removal bolt stakes to the trellis. The stakes should be treated with creosote to prevent rot.



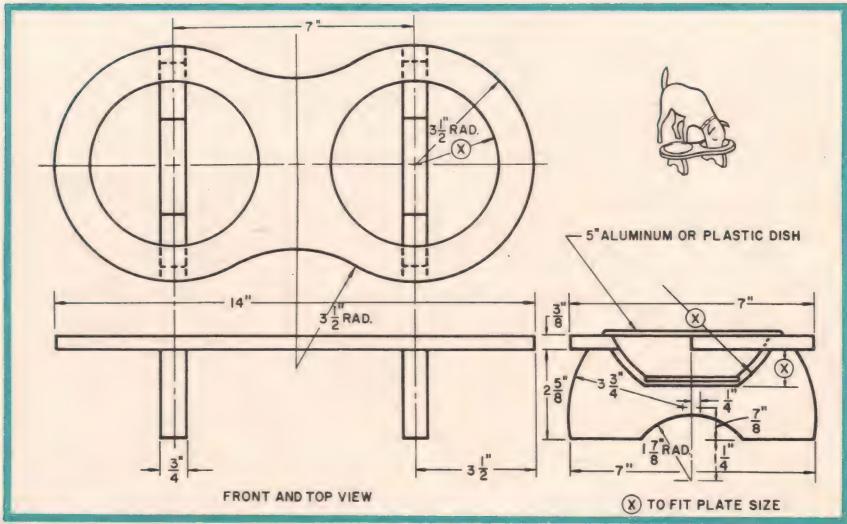
WOODEN BEACH CLOGS

Here is a simple design for beach clogs that you can make in one evening. Draw the outline on some cedar stock and cut out to shape on the band saw. Make the edge cuts first then tack the pieces back on and saw out the top profile. Paint in bright colors, when dry, tack the canvas band and elastic strip.



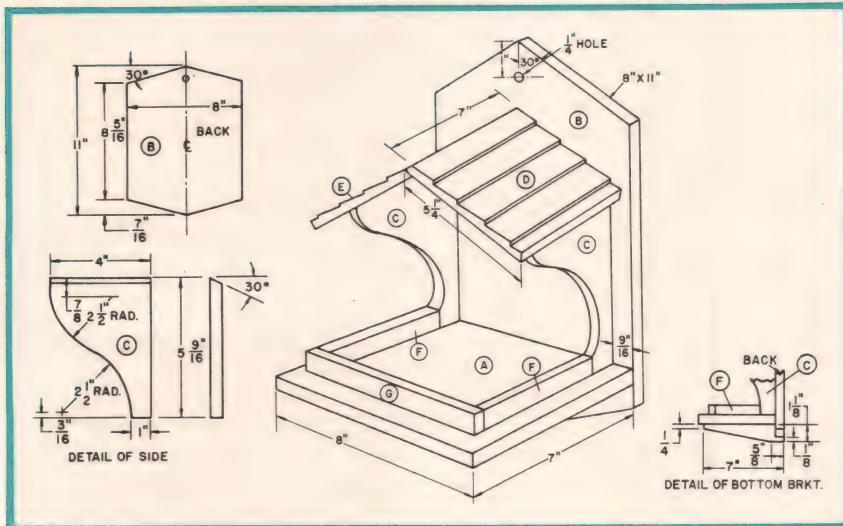
DOG FEEDING STAND

One piece of plywood $\frac{3}{8}$ inch thick by 7 inches wide by 14 inches long and two pieces of $\frac{3}{4}$ inch solid stock $2\frac{1}{2}$ x 7 is all the material you need to make this simple dog feeding stand. The (X) dimensions in the drawing will be determined by the size and shape of the bowls. Seal with shellac and enamel in bright colors.



ROBIN SHELTER

Robins looking for a home will welcome this shelter if nailed to a tree trunk or under the porch eaves. All working dimensions are given in the drawing. The roof with the shingle effect is made on the circular saw with the moulding cutter straight knife Cat. No. 35-104. The saw arbor must be tilted 5° . Use the waterproof glue and finishing nails for assembling the house. Apply a dark brown stain.

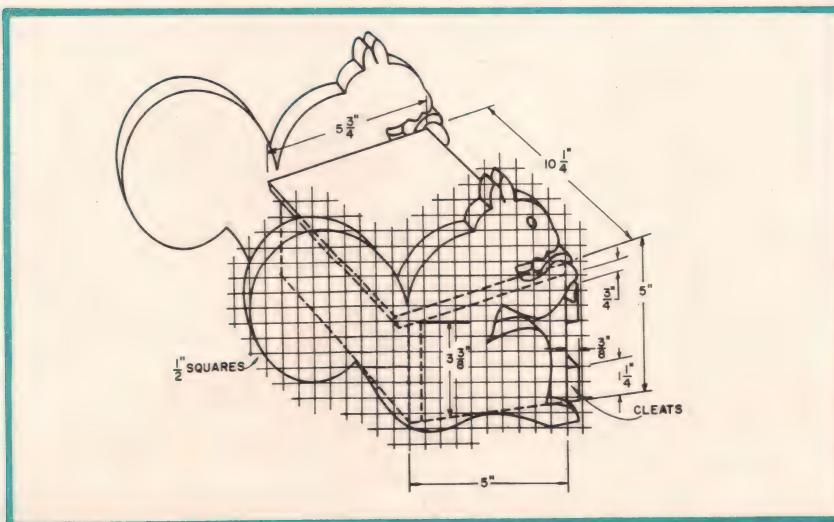


Bill of Materials ROBIN SHELTER

No. of Pcs.	Name	Size
1	(A) Bottom	1/2 x 7 x 8
1	(B) Back	1/2 x 8 x 11
2	(C) Sides	1/2 x 4 x 5 5/8
1	(D) Roof Board	1/2 x 7 x 5 1/4
1	(E) Roof Board	1/2 x 7 x 4 1/4
1	(F) Side Cleats	1/2 x 5/8 x 3 3/8
1	(G) Front Cleat	1/2 x 5/8 x 6 7/8
1	(H) Bottom Bracket	1/2 x 1 1/8 x 7

MAIL BOX

This wooden mail box comes in handy when you are not at home to receive the daily mail. The entire box is made of $\frac{1}{4}$ inch waterproof plywood except the back cleats. The squirrel cut-outs give the box a gay touch of design. The box lid is hinged to the base with small brass hinges or leather hinges. Assemble the box with waterproof glue and brads.



Bill of Materials MAIL BOX

No. of Pcs.	Name	Size
2	Squirrel Overlays	1/4 x 6 1/2 x 8
2	Box Sides	1/4 x 4-11/16 x 4-9/16
1	Box Back	1/4 x 4 3/4 x 10 1/4
1	Box Front	1/4 x 3 3/8 x 10 1/4
1	Box Bottom	1/4 x 4 1/2 x 9 3/4
1	Box Top	1/4 x 5 3/4 x 10-3/16
2	Box Cleats	3/8 x 1 1/4 x 10 1/4
2	Butt Hinges (Brass)	1/2 x 1



(Photo No. 1)

PICNIC TABLE and BENCHES

When unexpected company comes during a sunny weekend or holiday you can plan a real picnic right in your own back yard if you own this picnic table set.

With the benches separate from the table you have a picnic table that is more versatile than other types. You can use the benches to do double duty as lawn seats.

The table and benches are bolt fastened with $\frac{3}{8}$ carriage bolts and wood screws so they can be taken apart for Winter storage. They would make excellent pieces for the recreation room for Winter use if desired.

The bottom stretchers on the table and benches are screw fastened to the ends with No. 10 x 4 flat head wood screws as shown in Fig. 3 of the drawing on opposite page.

Both table and benches are made of standard 2 x 4 and 2 x 10 stock. Short benches for the ends could be made by using identical details as in the long ones except the length of the top boards and the bottom stretchers.

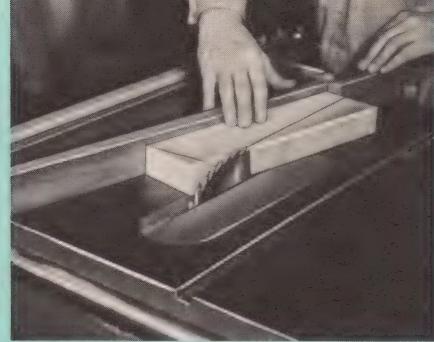
The feet (C) of the uprights on both table and the benches can be cut in pairs by tacking them together as in Photo No. 3. For details see Fig. 2 in the drawing. The curved surface is then sanded smooth on the disk sander (Photo

No. 5). The tapers on the uprights are cut on the circular saw (Photo No. 2 and Fig. No. 5) with an adjustable tapering jig (featured in November-December 1953 Deltagram). Cut the top cleat (B) and (H) to length at angles shown in Fig. 2 and 4, on your circular saw by setting the miter gage to the proper angle indicated in the drawing. Assemble the leg sections with nails to hold them together for drilling the $\frac{3}{8}$ inch bolt holes on the drill press. Use $\frac{3}{8} \times 3\frac{1}{2}$ inch long carriage bolts for assembling the leg sections.

The top planks on the table and bench tops are assembled together with $\frac{3}{8} \times 5\frac{1}{2}$ inch long carriage bolts. Place steel washer under the nut of each bolt so that it does not cut into the wood.

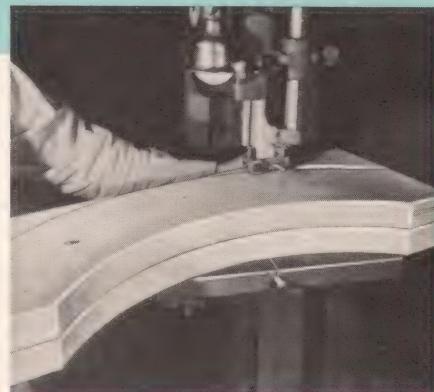
Before assembling any of the parts, break all sharp corners on the drill press using the Cat. No. D-80 shaper cutter.

As a rule, a picnic bench of this type is usually left natural; because it will be used outside it should be preserved with several coats of boiled oil (mixed—half oil and half turpentine) brushed well into the wood. In place of the oil the new wood preservatives can be used. Allow 24 to 48 hours between coats. When the oil or wood preservative is thoroughly dry you can then apply a spar varnish.



(Photo No. 2)

With the aid of a tapering jig the uprights are cut on the circular saw.



(Photo No. 3)

By tacking two pieces of stock the curved feet can be cut in pairs on the band saw.



(Photo No. 4)

All sharp corners are easily rounded off with the Cat. No. D-80 shaper cutter mounted on the adapter for the drill press. The press should run at its highest speed or about 5000 rpm.



(Photo No. 5)

For smooth curves the legs are being sanded on the disk sander.

Bill of Materials

TABLE

No. of Pcs.	Name	Size
3	(E) Table Top	$1\frac{1}{8} \times 9\frac{1}{8} \times 72$
4	(A) Leg Uprights	$1\frac{1}{8} \times 3\frac{1}{8} \times 26\frac{1}{8}$
2	(B) Upright Cleats	$1\frac{1}{8} \times 3\frac{1}{8} \times 23\frac{1}{8}$
2	(C) Feet	$1\frac{1}{8} \times 9\frac{1}{8} \times 28$
1	(D) Stretcher	$1\frac{1}{8} \times 5\frac{1}{8} \times 53\frac{1}{8}$

BENCHES

2	(F) Bench Tops	$1\frac{1}{8} \times 9\frac{1}{8} \times 72$
8	(G) Leg Uprights	$1\frac{1}{8} \times 3\frac{1}{8} \times 13\frac{1}{8}$
4	(H) Upright Cleats	$1\frac{1}{8} \times 3\frac{1}{8} \times 8\frac{1}{8}$
4	(J) Feet	$1\frac{1}{8} \times 3\frac{1}{8} \times 12$
2	(K) Stretchers	$1\frac{1}{8} \times 3\frac{1}{8} \times 53\frac{1}{8}$
24	Carriage Bolts (with Nuts and Washers)	$5/16 \times 4$
20	Carriage Bolts (with Nuts and Washers)	$5/16 \times 6$
12	Flat Head Wood Screws	No. 12 x 4

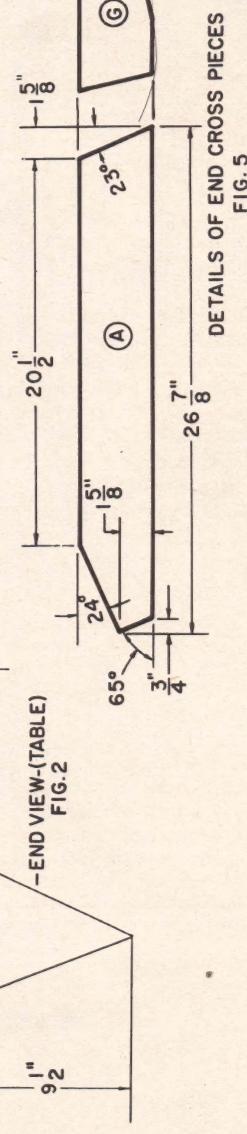
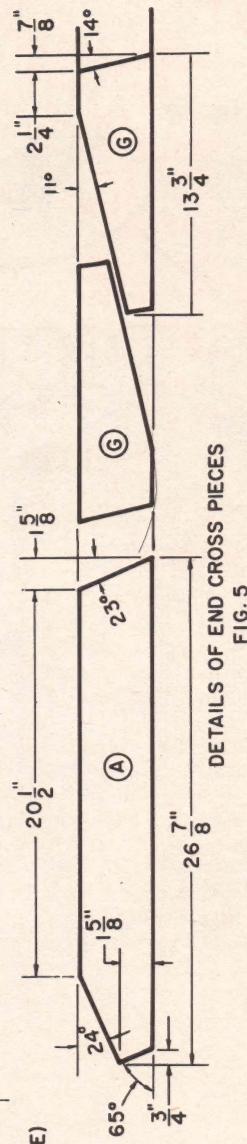
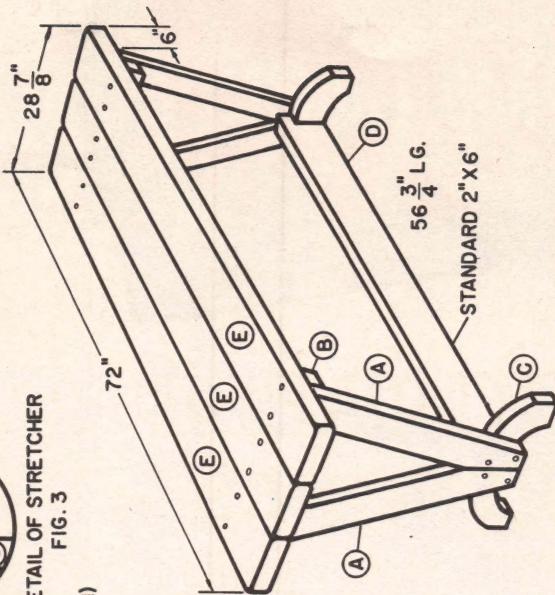
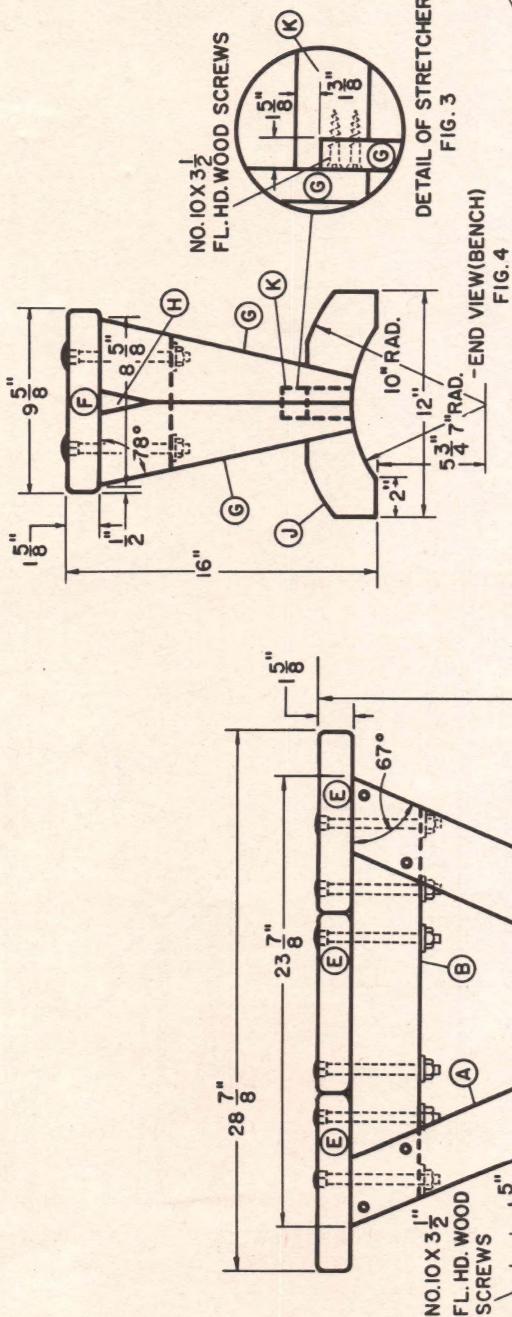
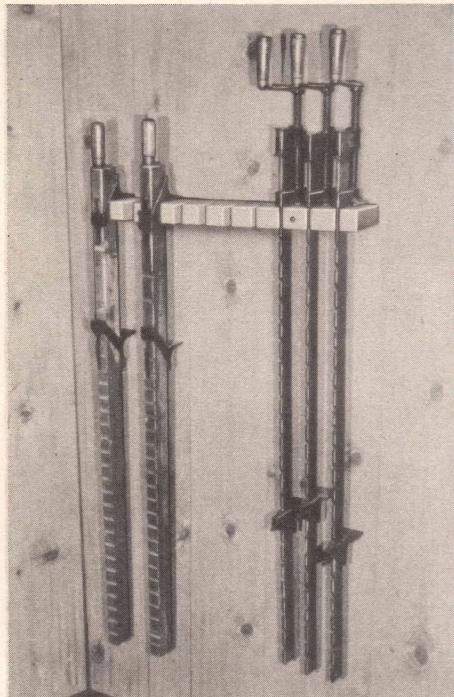


FIG. 5 - DETAILS OF END CROSS PIECES

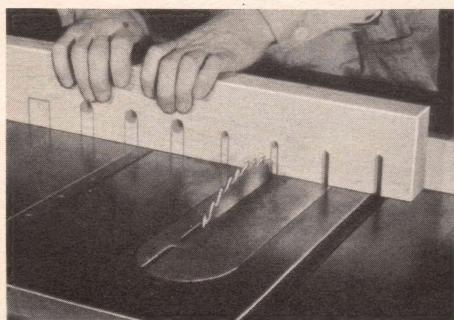


CLAMP RACK

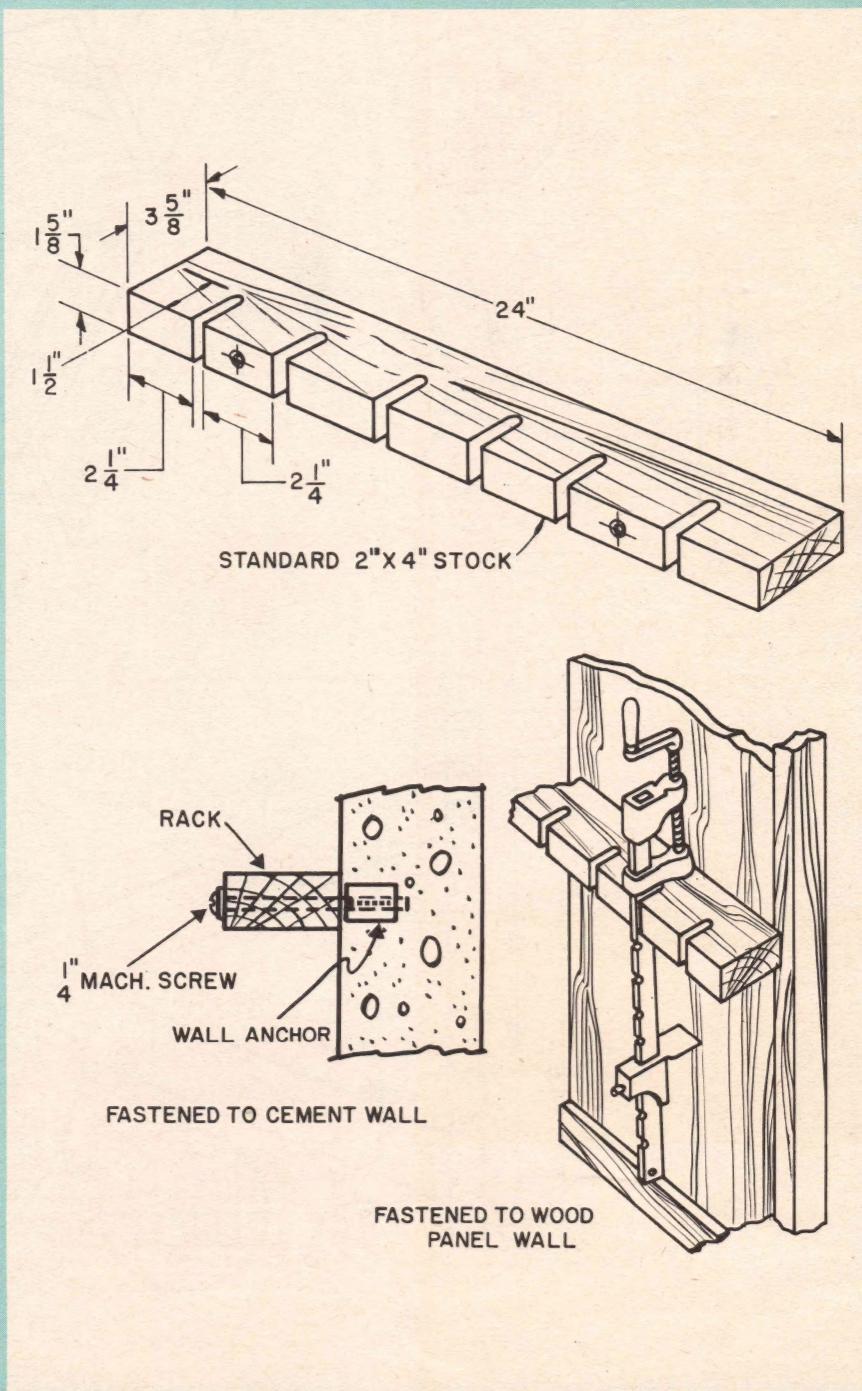


Just as a housewife likes to keep her pots and pans in order so should the workshop enthusiast keep his bar clamps neatly stacked for instant use when gluing and assembling a project.

This simple rack is made from a hard piece of 2 x 4 stock — the length will depend on the number of clamps used. The one shown will hold about seven steel bar clamps and two wooden ones. Drill holes $1/16$ inch larger than the size of the bar clamp thickness and cut out the slots on the circular saw. Seal with shellac and a coat of spar varnish.



After the holes are drilled the slots are cut out on the circular saw.





Workshop Book Review

"How to Plan Your Basement and Attic"
By Guy Henle
Price — \$1.95

Have you felt the need for extra bedrooms, a recreation room? Then this book is designed for you. It will help you find the space for the rooms you need and show you how to build them in your attic or basement.

If you plan to do all or part of the building job yourself, this book will take you through each step of the work, showing you professional tricks and saving you from costly mistakes. It will also help you on such problems as wall and floor coverings, ceiling tiles, window treatments, lighting and built-in furnishings such as storage areas, etc.

The author of this book, Guy Henle, knows his subject at first hand. He is an ardent do-it-yourself amateur at home; and as Workshop Editor of the Woman's Home Companion magazine, knows about some real problems of people who want to build extra rooms, etc.

Get your copy from your local bookstore or direct from the publishers:

GREENBURG PUBLISHERS
201 East 57th Street
New York 22, New York

HERE'S WHERE TO BUY IT

These sources are listed as a service to Deltagram readers and do not necessarily constitute an endorsement by the Editor.

SASH CORD

Chaise Lounge.....Page 46
Local Hardware or Department Store

CANVAS

Sand Box.....Page 48
Local Awning Company

WOOD PRESERVATIVES

All Outdoor Projects
Local Paint Store

FLYING CHAIRS and READER COMMENTS



BENDING WOOD

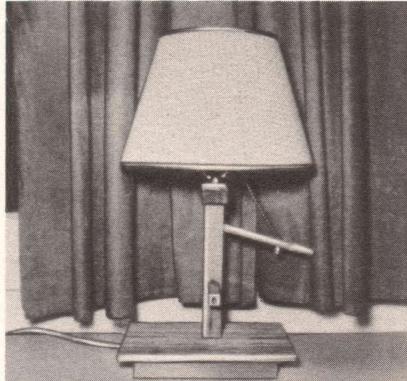
Houston Texas: I am interested in making a round table and the design I have in mind requires bending some wood. I have attempted to find information on this subject in the local library but have been unable to do so.

I would appreciate it very much if you would recommend some method of doing this type of work. You might be able to suggest some book which contains information on this subject.

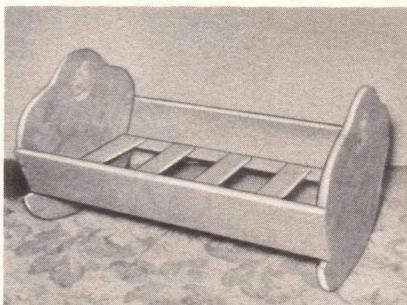
E. R. C.

The common way to bend wood is by use of the steam method. Although this requires equipment not likely available to the home-crafter. There are methods for making round forms that don't require extra equipment. One of these is the built-up method featured on the round lamp table that appeared in the January-February — 1955 Deltagram.

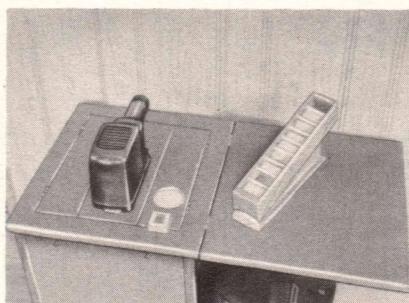
The Editor



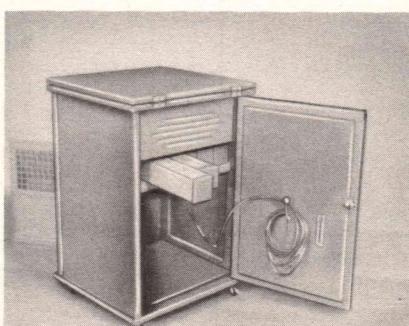
(Photo No. 3)



(Photo No. 4)



(Photo No. 1)



(Photo No. 2)

Union, New Jersey: For many years I have been reading your very helpful magazine and have noted that from time to time you have shown quite some interest in projects that your subscribers have built and like all home workshop enthusiasts, I have built many things to go with my other hobbies of camping and photography.

One of the projects I recently made is a cabinet to house all of my slide projection needs. I am enclosing some pictures of the finished job. (Photos No. 1 and 2)

James G. Curtis

PARAKEET NEST BOXES

Cordelle, Georgia: I am making parakeet nest boxes with a concave hole in the base so that the eggs will roll to the center. The base is made of $\frac{3}{4}$ inch stock, 7 inches square. The hole is approximately 4 inches in diameter and $\frac{1}{2}$ inch deep at the center. Turning this hole on the lathe is too slow.

Please advise if you make a tool that will cut this hole — preferably one that could be used in a drill press.

F. A. D.

Rockwell does not make a tool like this, nor is a standard cutter available on the market. You will require a special cutter made for the drill press. One concern that specializes in a cutter of this kind is the Circo Tool Company, 902 West Vliet Street, Milwaukee 5, Wisconsin. When making inquiries, be sure to submit a sketch of the finished product, better still send a sample of the item. They can then give you an exact quotation on the special cutter and also give you recommended speeds for best results on the type of material used for your finished product.

The Editor

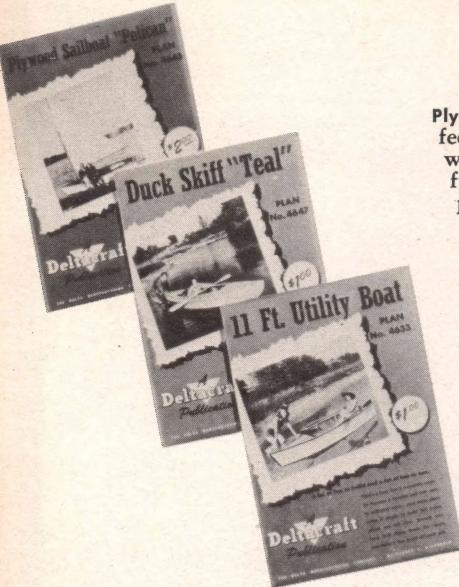


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Build a Boat and Have Fun...



Plywood Sailboat "Pelican" Here is a nifty little sailor with 60 square feet of sail area. Build this boat for yourself of waterproof plywood. It is easy to construct and it is fun to sail. The plans include full size rib and frame drawings to eliminate guesswork and simplify construction. All necessary dimensions and photographs as well as step-by-step instructions are given in a manner which makes it impossible to go wrong. Start building this sailboat today and spend hours of fun and relaxation sailing it to your hearts content. . . .

Plan No. 4643.....\$2.00

Duck Skiff "Teal" A hunting skiff is always a popular project. Here are plans for an excellent boat which can be built quickly and economically from these full size, easy-to-follow instructions. This double pointed skiff draws very little water when fully loaded and is just what the doctor ordered to get into shallow waters or marshes. Order your plans today and become the envy of your hunting group. . . .

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11-Foot Utility Boat This boat is extremely popular because it handles equally well with oars or an outboard motor. It is trim in appearance and instructions are so simple that anyone can do a good job. All frame pieces are full size so they can be copied directly onto the stock. You will want this boat for all-around use at your summer home. . . .

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